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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,868	02/20/2004	Taro Bando	723-1474	5139

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EXAMINER	
FREEMAN, WILLIAM	
ART UNIT	**PAPER NUMBER**
3709	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/29/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/781,868	BANDO, TARO	
	Examiner	Art Unit	
	William T. Freeman	3709	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-20 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 20 February 2004 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. §.119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date See Continuation Sheet.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :2/20/04, 2/17/05, 3/30/05, 6/10/05.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 11-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. These claims relate to functional descriptive material (computer program), in combination with a storage medium, but are unclear as to whether the storage medium is a computer readable storage medium and if the code is in executable form. The computer program must be executable code used in combination with an appropriate computer readable medium and capable of producing a useful, concrete and tangible result.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7, 10-17, and 20 is rejected under 35 U.S.C. 102(b) as being anticipated by Truchsess (US 5,734,726).

Re Claim 1 and 11: A game apparatus and process comprising:

an operating section/input step (S1, Fig. 7; Col. 3, Lines 43-45) for inputting, in accordance with the player's operation, at least acceleration operation input data (Col. 1,

Lines 63-65) for accelerating a movement of the object (toy vehicle; Col. 1, Line 59) and deceleration operation input data (Col. 1, Lines 63-65) for decelerating a movement of the object;

an acceleration sound storage section (Segments 1-6 of memory 20, Fig. 1 and 4) in which a series of acceleration sound data of the object are stored in accordance with action parameters of the object (Col. 3, Lines 49-53);

a deceleration sound storage section (Segments 7-10 of memory 20, Fig. 1 and 4) in which a series of deceleration sound data of the object are stored in accordance with the action parameters of the object (Col. 3, Lines 49-53);

a read position calculating section (jump vector, Fig. 3) for selecting, based on operation input data inputted via the operating section, either one of the acceleration sound data and the deceleration sound data which are stored in the acceleration sound storage section and the deceleration sound storage section, respectively, and for calculating a read start position of selected sound data corresponding to a current action parameter of the object (Col. 4, Lines 1-8);

a sound data reading section (22, Fig. 4-6) for sequentially reading, from the read start position, the sound data selected by the read position calculating section (Col. 3, Lines 53-55); and

a sound output control section (28, Fig.4-7) for emitting, as a sound, the sound data read by the sound data reading section (Col. 3, Line 58).

Re Claim 2 and 12: Truchsess discloses that the read position calculating section changes a calculation target at the read start position from one to the other between the acceleration sound data and the deceleration sound data, while the sound data read section sequentially reads, in response to a change of the calculation target of the read position calculating section, sound data newly targeted for calculation from the read start position, thereby continuously reading different types of sound data before and after the change of the calculation target (Col. 4, Lines 1-26).

Re Claim 3 and 13: Truchsess discloses that when the sound data reading section is sequentially reading the acceleration sound data in response to the acceleration operation input data from the operating section, if there is an input of the deceleration operation input data from the operating section, the read position calculating section calculates the read start position of the deceleration sound data based on an action parameter (S1, Fig. 7) corresponding to a read position (jump vector, Fig. 3) of the acceleration sound data being read by the sound data reading section (as shown in Fig. 3) (Col. 4, Lines 1-26).

Re Claim 4 and 14: Truchsess discloses when the sound data reading section is sequentially reading the deceleration sound data in response to the deceleration operation

input data from the operating section, if there is an input of the acceleration operation input data from the operating section, the read position calculating section calculates the read start position of the acceleration sound data based on an action parameter (S1, Fig. 7) corresponding to a read position (jump vector, Fig. 3) of the deceleration sound data being read by the sound data reading section (as shown in Fig. 3) (Col. 4, Lines 1-26).

Re Claim 5 and 15: Truchsess discloses that the acceleration sound data stored in the acceleration sound storage section contains at least sound data corresponding to an acceleration range where the object accelerates from a minimum speed to a maximum speed at a constant acceleration rate (as shown in Fig. 1) (Col. 4, Lines 11-16); and the deceleration sound data stored in the deceleration sound storage section contains at least sound data corresponding to a deceleration range where the object decelerates from the maximum speed to the minimum speed at a constant deceleration rate (as shown in Fig. 1) (Col. 4, Lines 16-20).

Re Claim 6 and 16: Truchsess discloses that the acceleration sound data stored in the acceleration sound storage section further contains sound data corresponding to a maximum and constant speed range, where the object moves at the maximum and constant speed, and the sound data corresponding to a maximum and constant speed range is sequential in address to the sound data corresponding to the acceleration range (as shown in Fig. 1) (Col. 4, Lines 11-16);

and if the acceleration operation input data is continuously inputted from the operating section for a period of a prescribed time or more, the sound data reading section repeatedly reads the acceleration sound data corresponding to the maximum and constant speed range (as shown in Fig. 1) (Col. 4, Lines 15-16).

Re Claim 7 and 17: Truchsess discloses that the deceleration sound data stored in the deceleration sound storage section further contains sound data corresponding to a minimum and constant speed range, where the object moves at the minimum and constant speed, and the sound data corresponding to a minimum and constant speed range is sequential in address to the sound data corresponding to the deceleration range (as shown in Fig.1) (Col. 4, Lines 16-20);
and if the deceleration operation input data is continuously inputted from the operating section for a period of a prescribed time or more, the sound data reading section repeatedly reads the deceleration sound data corresponding to the minimum and constant speed range (as shown in Fig. 1) (Col. 4, Lines 19-20).

Re Claim 10 and 20: Truchsess discloses that the object is a vehicle (Col. 1, Line 59); and the action parameter corresponds to a speed of the vehicle (Col. 4, Line 13-14).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 8-9 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Truchsess (US 5,734,726) in view of Klayman (US 5,784,468).

The teachings of Truchsess have been explained above.

Re Claim 8-9 and 18-19: Truchsess discloses that the operating section is able to input acceleration and deceleration operation input data for accelerating and decelerating the movement of the object at an arbitrary rate of speed in accordance with a degree of operation designated by the player (Col. 3, Lines 43-52).

However, Truchsess fails to disclose that the sound output control section includes an acceleration and deceleration sound frequency correcting section.

Klayman teaches processing sound signals by applying frequency correction (Col. 12, Lines 22-33; Col. 15, Lines 23-30).

Therefore, in view of Klayman, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Truchsess's device and method to include applying frequency correction to the acceleration and deceleration data in order to acoustically enhance the output from the speakers that results in an even greater enhancement of spatial sound stage.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kite et al. discloses an electronic vehicle race simulator, Koike et al. discloses a simulated sound generator for electric vehicles, and Henry et al. discloses a method and system for producing sounds of a simulated vehicle.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William T. Freeman whose telephone number is 571-270-1343. The examiner can normally be reached on Mon thr Thu 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jong-Suk (James) Lee can be reached on 571-272-7044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WF

KIM NGUYEN
PRIMARY EXAMINER